

Testing Narrative and Technical Exhibit

The Applicant seeks Experimental Licensing Authority for testing of a proprietary radar system used to track small unmanned aircraft systems ("sUAS") and other targets and to distinguish sUAS from other flying objects (e.g., other aircraft, birds, etc.). The Applicant's radar system is designed specifically for small radar cross section (RCS) targets in high clutter environments. Low utilization by the public and minimal traffic presents an optimal environment for clear-span radiating tests with minimal multi-path or spurious interference.

Testing Scenarios

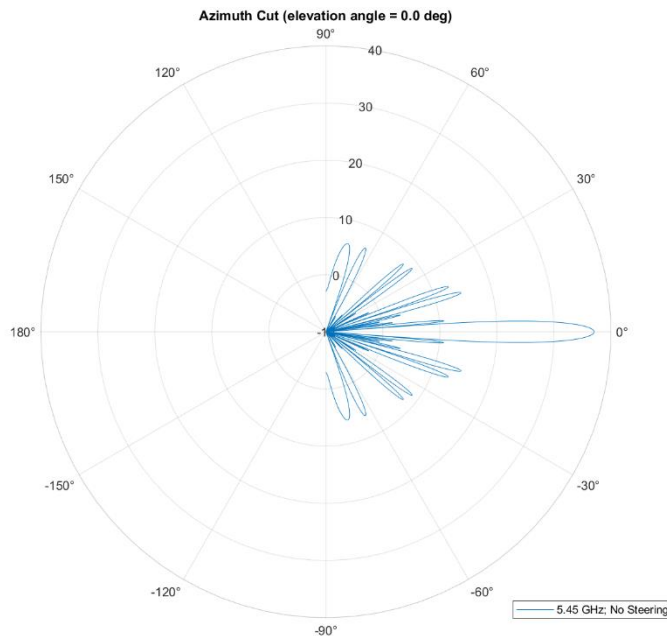
Verifying radar performance and key specifications against various airborne targets with intermittent outdoor testing.

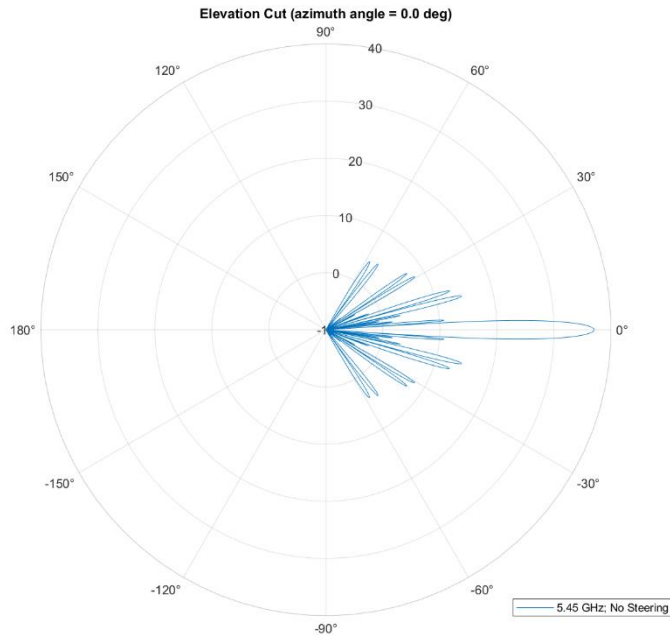
Technical Information

Configuration #1:

Transmit duty cycle: 10%

Antenna is Active Electronically Steered Array with main beam gain: 37.02 dBi

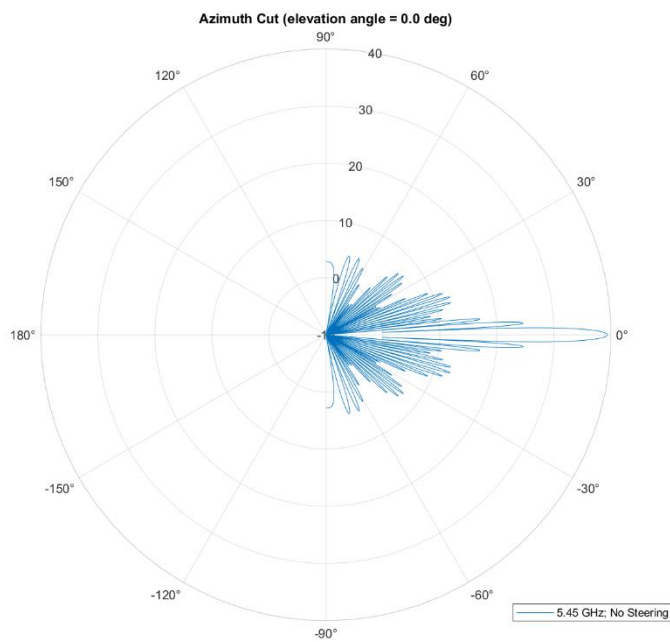


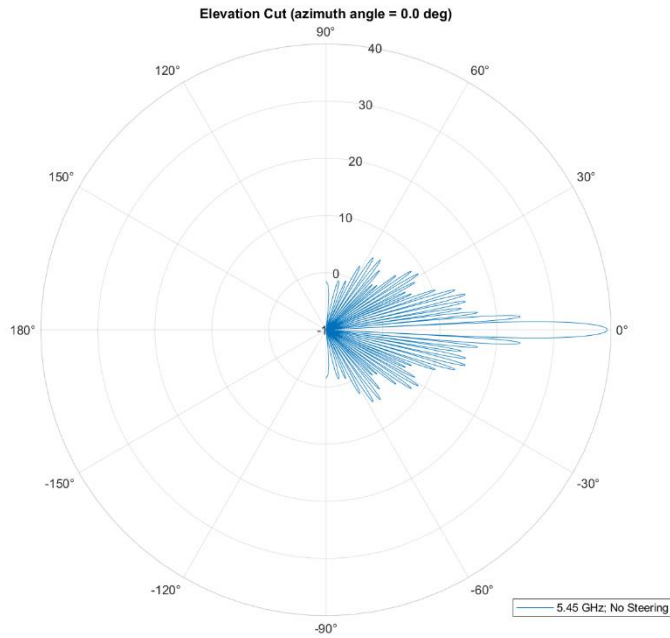


Configuration #2:

Transmit duty cycle: 20%

Antenna is Active Electronically Steered Array with main beam gain: 39.35 dBi

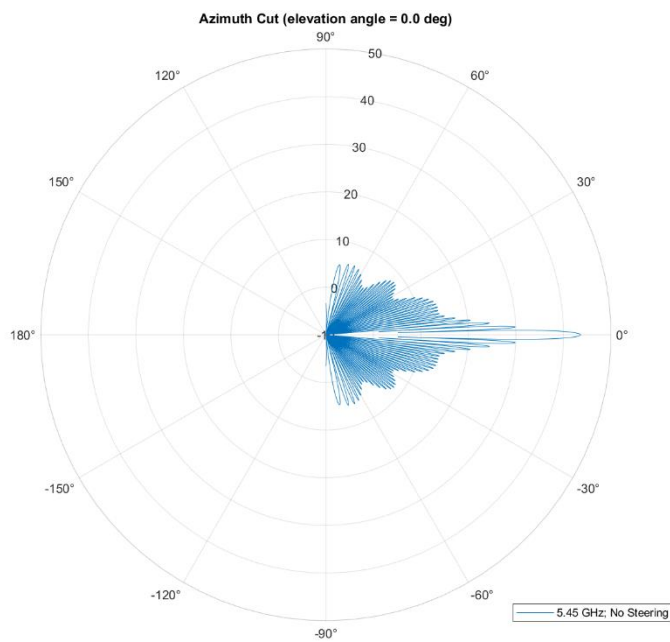


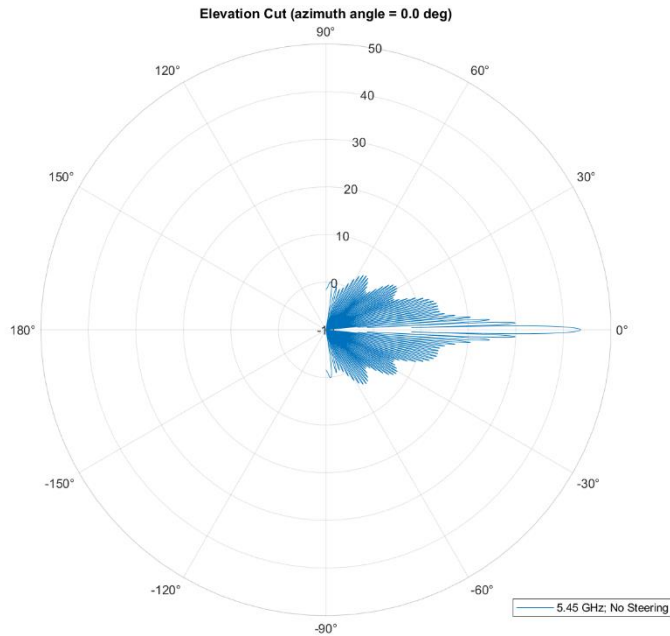


Configuration #3:

Transmit duty cycle: 20%

Antenna is Active Electronically Steered Array with main beam gain: 43.59 dBi





Avoiding Harmful Interference

Applicant agrees to have 15 degree avoidance angle from the JASON-3 (NORAD ID: 41240) and JASON-CS/Sentinel-6 (NORAD ID: 46984) satellites. The avoidance angle is measured from the boresight of the test site ground station antenna and the satellite path.